ALEUTIAN ISLANDS AND ATKA-AMLIA ISLANDS MANAGEMENT AREAS ANNUAL SALMON MANAGEMENT REPORT, 1996

By
Patrick B. Holmes

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AUTHOR

Patrick B. Holmes is the Aleutian Islands Salmon Biologist, Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, 211 Mission Road, Kodiak, Alaska 99615.

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Nick Sias, the *Grumman Goose* pilot for Peninsula Airways died this year while returning from a flight to Makushin Bay. Nick was the most experienced salmon stream survey pilot in the Aleutians. His knowledge and presence will be missed by all who knew and flew with him.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

INTRODUCTION

This report presents information on Aleutian Islands commercial, subsistence, and personal use salmon harvest and Unalaska Island escapements for 1996. It includes information for both the Aleutian Islands and Atka-Amlia Islands Management Areas.

The Aleutian Islands Management Area consists of the Aleutian Islands west of Unimak Island, excluding the Atka-Amlia Islands Management Area which encompass all Aleutian Islands waters located between Seguam Pass (172°50'W. long.) and Atka Pass (175°23'W. long.) (Figures 1 and 2; ADF&G, 1995a).

The Aleutian Islands Area is part of salmon permit Area M. Seining is the only legal method to harvest salmon in the Aleutian Islands Area. Legal harvest methods for Atka-Amlia Islands, Area F, includes both set gillnet gear and purse seines. To date, only set gillnets have reported harvest from Atka-Amlia Islands Area (Holmes 1995).

The Aleutian Islands produce runs of sockeye, coho, pink, and chum salmon. However, only pink salmon have proven to be of commercial importance (Table 1). Unalaska, Umnak, Unimak, Atka, Amlia, Adak, and Attu Islands produce commercial sized pink salmon runs during some years. Tanaga, Kanaga, and Kiska Islands all have at least one important pink salmon stream.

Nearly all commercial fishing effort has been confined to Unalaska Island, except for occasional fishing on Umnak Island during the 1950's and early 1960's, and a 1963 Attu Island expedition. The Atka/Amlia fishery has yet to be a commercial success. Only small numbers of pink salmon have been landed at Atka Island in 1992, 1993, and 1994 (Table 2; Holmes 1995).

Aleutian Islands pink salmon runs tend to be much larger during even years. Often there is no commercial harvest during odd years. The record Aleutian pink salmon catch of nearly 2.6 million fish was taken on Unalaska Island in 1980 (Table 1). Roughly two million fish were taken out of Makushin Bay that year alone. Nateekin River in Unalaska Bay had a history of producing large runs during both odd and even years, but hasn't produced a strong odd year run since 1981. Pink salmon runs are often unstable, producing very high returns and then collapsing for no apparent reason.

Unalaska salmon escapement data are incomplete for most years due to poor weather, remoteness, lack of availability of suitable aircraft, and high cost of aircraft charters. Escapement information is nearly nonexistent for the balance of the Aleutian Islands Area. The only comprehensive escapement and distribution study of the entire Aleutian chain was done by ADF&G in 1982 (Holmes 1997). Limited studies have been conducted at Amchitka Island in 1977 (Seimenstad 1977; Valdez 1977); ADF&G conducted work on Atka and Amlia Islands in 1992, 1993, and 1994 (Holmes 1995); the U.S. Fish and Wildlife Service (USFWS) did additional abundance and distribution research at Adak Island in 1993 and 1994 (Palmer 1995)

The timing of Unalaska pink salmon runs is similar to the South Peninsula, while Atka-Amlia pink salmon run timing may be one to two weeks later. Aleutian Island pink salmon time of

entry varies considerably between years and between streams; it is much more variable than on the South Peninsula. Pink salmon often begin to enter streams in late July and may trickle in throughout September at both Atka and Unalaska Islands during large runs (usually even years).

Aleutian pink and sockeye salmon (within a given age group) tend to be of smaller size and weight than those of Alaska Peninsula stocks (Shaul and Berceli 1994).

Markets are often a limiting factor of commercial salmon production in the Aleutian Islands. This has been true for both Unalaska Island and the Atka-Amlia Island fisheries. At Unalaska there is often no market unless pink salmon abundance warrants tenders traveling from King Cove or a small floating processor moves into the area. Some fish (usually sockeye salmon) were salted by local fishermen prior to 1979. Processors located at Unalaska-Dutch Harbor or Akutan, purchased most of the salmon from 1979 through 1988. Due to the decline in demand for frozen pink salmon during recent years, most of the harvest has been transported to the Alaska Peninsula for canning. The lack of market for pink salmon has also been the major factor affecting harvest in the Atka-Amlia Islands Area.

1996 SEASON

The commercial salmon fishery was managed by the Alaska Department of Fish and Game staff in Dutch Harbor. This was the second season that a full time salmon management biologist was assigned to this task during the salmon season. The Aleutian Salmon Biologist assisted in the Dutch Harbor food and bait herring fishery, monitored the commercial fisheries at Atka and Unalaska Islands, as well as the Unalaska sport and subsistence fisheries and habitat issues. Salmon subsistence permits were issued and harvest compiled in Dutch Harbor. Harvest data were summarized by the salmon staff, based in Kodiak during the winter.

Commercial Harvest

The Aleutian Islands remain the State's smallest salmon fishery. For the second year in a row there were no commercial landings at Unalaska or Atka Islands. Salmon did not follow the usual pattern of strong even year returns in 1996. While there was an interest from a small consortium of fishermen and a floating processor to fish pink salmon in Makushin Bay, after a brief exploration of the area they elected to fish in another part of the State.

Historical salmon harvests for the Aleutian Islands and Atka-Amlia Islands Areas are reported in Tables 1 and 2. The Unalaska District pink salmon run was poor for an even year. The eight year average even year pink catch is about 1,000,000 fish; the odd year average pink harvest for the last eight years is around 10,000 fish (Table 1) There was one commercial opening during the season, with two extensions; however, local fishermen chose to participate in other salmon or halibut fisheries (Table 3). Atka Island also had a moderate return of pink salmon. While ten local Atka fishermen obtained permits only one chose to fish salmon, and he kept the fish for his own bait. The Atka fishermen participated instead in the more lucrative halibut fishery.

Subsistence and Personal Use Harvest

Subsistence salmon harvests are very important to the communities of Unalaska and Atka. (Tables 4,5, and 6). Salmon personal use information for the military community of Adak is presented in Table 7. Sockeye salmon are the most desired species in Aleutian Island communities. The number of sockeye salmon taken at Unalaska Island has increased considerably in recent years. Between 1994 to 1995 the reported sockeye harvest increased by 61%, to 4,484 fish. While the number of permits increased to 189 in 1996 the subsistence harvest fell nearly 75% in 1996, to a five year low of 1,107 sockeye. Most of the sockeye catch in recent years has been taken at Reese Bay (McLee's Lake). Over 85% (968 fish) of the 1996 subsistence sockeye catch were taken in at McLee's Lake. While the subsistence harvest from Unalaska Lake continues to be only a small portion of the Islands overall subsistence catch, it is extremely important to Unalaska residents who cannot travel to other places to catch sockeye salmon. All subsistence permit holders this year were local residents (Table 5).

Atka subsistence data were collected by interviews conducted by ADF&G Subsistence Division; due to budget reductions the last survey was in 1994. It is the authors' belief that the subsistence harvest levels and methods have remained relatively stable at the small (pop. 80-90) community of Atka; with a catch of 400-500 sockeye and a total harvest of around 2,500 salmon.

Personal use harvest at Adak declined from the 1988-93 average of 529 sockeye salmon per year to 0 in 1994, with only 91 fish in 1996 (Table 7). Most of the fish were taken this year at Hidden Bay on the south side of Adak Island, 48 sockeye salmon were caught at Quail Bay on Kagalaska Island. No other species were reported in this year's catch. Participants in this fishery have greatly decreased since 1993 due to the closing of the U.S. Navy Base at Adak. Six permit holders harvested 91 sockeye salmon (Table 7) .

Escapements

The 1996 pink salmon escapements into many Unalaska streams were unexpectedly weak for an even year (Table 8). Sockeye escapement into Unalaska Lake continued to fall below the minimum escapement level of 400 fish. Sockeye escapements into Mclee's Lake were also down from 1995. Bad weather and a lack of available aircraft limited surveys effort at Unalaska. There was an unexpectedly low return of coho salmon to Nateekin River; on October 10 a foot survey estimate was only 447 coho. The expected coho escapement at that time should have been 1,000 to 1,500 fish. A subsistence and sport fishing closure was considered but not implemented by the respective ADF&G Divisions. Unfortunately it was not possible to conduct another survey. Unalaska High School Fisheries students estimated a peak escapement of 133 coho in the Unalaska Lake drainage at the end of October.

The loss of the Pen Air Goose and Nick Sias, the most experienced stream survey pilot in the Aleutians, severely hampered the survey program at Unalaska. The Area Biologist was only able to get one short flight in more than 40 days. Poor weather continued through most of September preventing any additional survey flights by local ADF&G staff.

No stream surveys were conducted at Atka or Amlia Islands due to a lack of funds for surveys. Local Atka residents reported a modest return of salmon to local streams in 1996. Escapement data for Unalaska Island for 1996 is presented in Table 8. Atka-Amlia Islands escapement information for 1992, 1993, and 1994 is presented in Holmes, 1995.

Unalaska Salmon Resource Issues

The community of Dutch Harbor/Unalaska has changed dramatically in the last 30 years. It has grown from a small native village of around 450 people to become a multi-cultural city of over 4,000 people; most of whom have moved there from outside of Alaska. While little data exists there is substantial anecdotal information to establish that the subsistence and sport harvest levels have increased substantially. Presently subsistence and sport users harvest all of the salmon; there was no commercial harvest on 1995 or 1996. When compared to "mainland" salmon systems Unalaska's salmon runs are rather small.

Subsistence management issues at Unalaska include: 1) Sockeye escapement into Unalaska Lake which continues to fall short of the minimum escapement goal. 2) Low coho escapement into Nateekin River in 1996. 3) Possible under reporting of subsistence harvest. 4) Loss of salmon due to leaving subsistence nets unattended. 5) McLee's Lake harvest patterns. These issues lead to discussions with members of the local Fish and Game Advisory Committee and implementation of subsistence restrictions for Unalaska Bay for the 1997 season.

The majority of the sockeye salmon harvest is taken in the local subsistence fishery. A few sockeye are taken in the sport fishery. Since the mid 1980's there has been no significant commercial salmon harvest in Unalaska Bay and that fishery focused on pink salmon, not the more desirable subsistence species of sockeye and coho salmon.

Unalaska Lake has not reached its minimal escapement goal (400 sockeye salmon) since 1987, escapements in the last two years have been approximately 250 fish. There has been severe environmental degradation of this lake and it drainages since World War II. Most of the habitat damage has been caused by siltation of the lake and loss of spawning grounds for lake shore spawners. A small stock of stream spawning sockeye salmon using the lake's inlet stream have been virtually nonexistent since a major flood in the mid-1980's scoured the stream. The City of Unalaska has taken an active role in attempting to restore the lake by paving some of the roadway above the lake and installing silt traps to reduced the flow of silt into the lake.

The majority of Unalaska Lake sockeye salmon are taken in the subsistence fishery at the south marker underneath the Unalaska Bridge (Figure 3). The few fish returning to the lake are easily caught at this location. Most of the fish travel through this bottleneck located at the narrows in the Illiuliuk Channel to enter the lake. Nearly 75% of the Unalaska Lake subsistence catch was taken at this spot in 1996. In addition, the Unalaska Harbor Master has identified fishing in the narrow channel at the bridge as being a hazard to navigation.

Most of the salmon streams in Unalaska Bay have not been reaching desired escapements levels in recent years. In addition to Unalaska Lake escapement falling short the Nateekin River had a

very low escapement of coho last year. Pink salmon escapements for most streams have been very low the last two years.

In 1996, systems from Unalaska Lake north to Morris Cove have 500 yard closed water markers at their salt water terminus (Figure 4; ADF&G, 1995b). Streams in Captain's, Nateekin and Broad Bays had no marine closed water markers at the stream mouths. A lack of closed waters at stream outlets allowed nets to be fished in the stream mouths (as long as no more than 1/2 of the mouth is not obstructed). This practice can result in large numbers of fish being caught at one time potentially jeopardizing the stream's spawning potential.

Another problem for Unalaska Lake salmon and other stocks has been the practice of leaving fishing gear unattended while it was being fished. This practice results in a reduced harvest for the fishermen as fish drop out of the net and marine mammals take fish, thus reducing the salmon escapement even more. In years when there is an unexpected low return of fish (i.e. Nateekin coho salmon this season) this fishing method may have substantial impacts on the spawning stocks.

In order to increase the salmon escapements in Unalaska Bay (particularly Unalaska Lake sockeye salmon) while still allowing for a subsistence fishery, the following changes were implemented by Emergency Order and subsistence permit stipulations for the spring of 1997: 1) Subsistence fishermen in Unalaska Bay will be required to be in attendance of their nets while they are being fished. 2) The closed water markers for the south side of the outlet to Unalaska Lake will be moved to a point south of Agnes Beach at 53°52.28' N. lat. , 166° 32.68'W. long. to a point at 53°52.35' N. lat., 166°32.59W. long on Amaknak Island. 3) Closed waters will be established at 250 yards of the stream outlets, all fresh waters and lakes of all anadromous streams in Unalaska Bay (except for Unalaska Lake where the southern makers will be moved approximately 250 yards south). 4) Permit holders will be required to have their permits in their possession at all times when fishing and transporting fish. 5) Permit holders must also record their catch immediately upon landing. The local Fish and Wildlife Protection Division staff is committed to providing enforcement efforts in monitoring the subsistence fishery.

These changes in subsistence management are intended to improve salmon escapements and to increase subsistence and sport harvest over the long run by rebuilding the spawning stocks. In the short term, sport fish harvest may increase at Nateekin and Makushin Valley (Broad Bay) Rivers; while reduced closed waters at Summers Bay, Humpie Cove, and Morris Cove might increase opportunities for subsistence fishermen and reduce sport harvest rates.

ADF&G staff was concerned that salmon returning to Mclees Lake might not being able to enter the inlet stream except on a high tide making them potentially vulnerable to overharvest. Fish hold in the fresh water interface in the ocean near the stream mouth as they adjust to fresh water prior to entering the stream. Most of the season the system is open to subsistence fishing to the stream mouth, (except July 1-10, when a 500 yard closure essentially stops the fishery because of the surf that starts about 200 yards from the stream mouth). Sockeye are very easy to catch before the closure. Some of the local subsistence gill net fishermen and one subsistence beach seiner "round haul" around the fish that school at the mouth, at times closing the fish off from the stream. While the escapement has not substantially declined Department limnology data

indicates this system has the potential of supporting a much larger run (Honnold et. al, 1996). The current closed waters stipulations for the outlet of Mclee's Lake were not changed for 1997 because of the local advisory committee desire to transfer subsistence fishing effort from Unalaska Lake to McLee's Lake (which has a stronger sockeye run) and because there was inadequate information to implement a change at this time.

1997 OUTLOOK

The 1997 Unalaska and Atka Islands commercial pink salmon catch and escapements should follow the pattern of weak odd year returns to most systems, unless unforeseen factors affect the number of returning salmon. It is possible that Unalaska Lake and Nateekin River could support a moderate run of pink salmon but that has not occurred in recent years. A commercial harvest of any species of salmon is not expected. There is no expected local market for salmon at Unalaska Island or Atka. The only exception might be a few landings of pink salmon taken for bait.

LITERATURE CITED

ADF&G (Alaska Department of Fish and Game). 1995a. 1995-1996 Alaska Peninsula, Atka/Amlia Islands, and Aleutian Islands Commercial Fishing Regulations Salmon and Miscellaneous Finfish, 1995 edition. Alaska Department of Fish and Game, Division of Commercial Fisheries, Juneau.

ADF&G (Alaska Department of Fish and Game). 1995b. 1995-1996 Statewide Subsistence and Personal use regulations, 1995 edition. Alaska Department of Fish and Game,

Holmes, P.B. 1997. Aleutian Islands salmon, 1982 stock assessment survey and current status. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K97-6, Kodiak Division of Commercial Fisheries, Kodiak.

Holmes, P.B. 1995. Atka/Amlia Islands Management Area Pink Salmon Fishery, 1992, 1993, 1994. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K95-9, Kodiak.

Honnold, S.G., J.A. Edmundson, and S. Schrof 1996. Limnogical and Fishery assessment of 23 Alaska Peninsula and Aleutian Area Lakes, 1993-1995: an evaluation of potential sockeye and coho salmon production. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K96-52, Kodiak.

Palmer, D.E. 1995. Survey of fisheries resources on Adak Island, Alaska Maritime National Wildlife Refuge, 1993 and 1994. U.S. Fish and Wildlife Service, Technical Report Number 29, Kenai.

Seimenstad, C.A., J.S. Isakson, and R.E. Nakatani 1977. Marine fish communities. in M.L. Merritt and R.G. Fuller eds. The environment of Amchitka Island, Alaska. United States Energy Research and Development Administration, Technical Information Document 26712, Oak Ridge.

Shaul, A.R., and R.S. Berceli. 1994.. Aleutians Area Annual Salmon Management Report. Alaska Department of Fish and Game, Commercial Fisheries Management and Development Division, Regional Information Report 4K95- 16, Kodiak..

Valdez, R.T., W.T. Helm, and J.M. Neuhold, 1977. Aquatic ecology *in* M.L. Merritt and R.G. Fuller eds. The environment of Amchitka Island, Alaska. United States Energy Research and Development Administration, Technical Information Document 26712, Oak Ridge.

Table 1. Aleutian Islands Area (excluding Atka and Amlia Islands) commercial salmon catches (in numbers of fish), 1911-1996.

Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1911			0	9,300	0	0	0	9,300
1912-15			0	0	0	0	0	0
1916			0	76,500	1,200	180,300	100	258,100
1917			0	70,400	3,800	600	23,100	97,900
1918			0	55,200	4,400	75,600	135,200	270,400
1919			0	3,900	800	4,000	0	8,700
1920			0	10,100	2,800	0	0	12,900
1921			0	0	0	0	0	0
1922			0	14,000	0	0	0	14,000
1923			0	0	0	0	0	0
1924			0	24,900	0	673,800	100	698,800
1925			0	18,600	0	3,800	9,100	31,500
1926			0	1,300	0	521,700	7,800	530,800
1927			0	17,300	0	334,600	0	351,900
1928-50								
1951			0	11,700	400	500	94,500	107,100
1952			200	42,800	0	31,800	25,700	100,500
1953			0	4,200	500	69,200	800	74,700
1954			0	6,300	800	566,500	200	573,800
1955			0	12,600	100	31,100	400	44,200
1956			0	400	0	33,900	0	34,300
1957			2,300	27,300	100	500	13,900	44,100
1958			0	300	0	613,200	3,700	617,200
1959			0	6,100	0	12,000	100	18,200
1960			0	7,600	0	444,900	300	452,800
1961			0	2,700	0	94,000	200	96,900
1962			0	5,500	100	2,001,700	1,200	2,008,500
1963			0	4,500	0	93,900	300	98,700
1964			0	200	0	194,100	2,300	196,600
1965			0	0	0	0	0	0
1966			0	1,000	0	63,500	700	65,200
1967			0	200	0	7,900	0	8,100
1968			0	2,000	100	902,800	800	905,700
1969			0	1,900	0	242,200	1,500	245,600
1970	45	361	6	208	135	644,121	3,029	647,499
1971	11	105	0	333	2	45,141	58	45,507
1972	8	28	0	69	1	2,784	6	2,860
1973	3	6	0	0	0	2,042	0	2,042
1974	0	0	0	0	0	0	0	0
1975	5	6	0	19,402	0	659	1,881	21,942
1976-77	0	0	0	0	0	0	0	0
1978	6	32	0	1,829	0	38,109	6	39,944
1979	10	124	0	12,206	0	539,393	242	551,841

-Continued-

Table 1. (page 2 of 2)

Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1980	28	263	2	9,226	0	2,597,502	4,874	2,611,565
1981	16	85	16	5,430	188	302,786	6,553	314,973
1982	15	164	0	2,672	28	1,447,818	6,148	1,456,666
1983	2	11	0	4,405	0	2,005	11,361	17,771
1984	37	281	26	67,163	1,923	2,309,665	33,025	2,410,802
1985	3	4	40	2, 750	0	90	14,175	17,055
1986	9	31	11	7,702	60	42,621	38,819	89,213
1987	1	1	0	75	0	0	0	75
1988	3	31	0	4,315	7	183,109	450	187,881
1989	2	6	0	8,248	0	6,700	0	14,948
1990	15	49	0	12,435	74	282,823	1,038	296,372
1991	1	2	0	796	0	0	0	796
1992	4	20	0	3,082	0	312,072	1,230	316,348
1993	0	0	0	0	0	0	0	0
1994	10	64	47	6	0	858,787	617	859,457
1995	0	0	0	0	0	0	0	0
1996	0	0	0	0	0	0	0	0
Average:								
1976-1995	8	59	7	7,153	114	446,178	5,926	459,285
1986-1995	5	20	6	3,737	8	168,611	4,215	176,509

Table 2. Atka-Amlia Area commercial salmon catches (in numbers of fish), 1992-1996.

Year	Permits	Landings	Chinook	Sockeye	Coho	Pink	Chum	Total
1992[a]	13	41	0	231	42	7,972	308	8,553
1993[b]	9	10	0	24	4	145	563	736
1994[c]	6	7	0	16	0	896	0	912
1995[bc]	8	0	0	0	0	0	0	0
1996[bc]	10	0	0	0	0	0	0	0
Average:	9	15	0	68	12	2,253	218	2,550

[a] Fisherman were never paid for their catch by processor.

[b] No local market for salmon, catch retained for personal halibut bait and subsistence.

[c] Small salmon return, no market, fishermen fished for halibut.

Table 3. Emergency orders for Aleutian Islands Area, 1996.

EMERGENCY ORDER N0. 4-FS-M-CB-35-96
EFFECTIVE DATE: 7:00 a.m. July 22, 1996

EXPLANATION: This emergency order establishes a 7:00 a.m. July 22 until 9:00 p.m. July 26 commercial salmon fishing period in the Aleutian Islands Area.

The closed waters at Humpback Bay (located within Makushin Bay) are expanded to include all of Humpback Bay.

JUSTIFICATION: A strong pink salmon run is anticipated in the Aleutian Islands Area and effort is anticipated to be light. Fishing time is needed to harvest the resource.

The largest stream in Humpback Bay is the key pink salmon producer within the Makushin Bay Section. The fish enter the stream at a slow rate and the standard 500 yard closure has been inadequate at times in the past in to ensure that escapement goals will be achieved. An extensive closure will allow an adequate number of Humpback Bay pink salmon to escape while allowing liberal fishing time outside the bay if the run is strong .

EMERGENCY ORDER N0. 4-FS-M-CB-40-96
EFFECTIVE DATE: 9:00 p.m. July 26, 1996

EXPLANATION: This emergency order extends the commercial salmon period seven days, until 9:00 p.m. August 2, in the Aleutian Islands Area.

JUSTIFICATION: A strong pink salmon run is anticipated in the Aleutian Islands Area but due to low demand for pink salmon and the remoteness of the area, fishing effort is anticipated to be very light. To date there has been no commercial salmon fishing effort in the area and none is anticipated within the next few days. Fishing time is needed to create an incentive for fishermen and processors to move to the Aleutians to test run strength.

EMERGENCY ORDER N0. 4-FS-M-CB-48-96
EFFECTIVE DATE: 9:00 p.m. August 2, 1996

EXPLANATION: This emergency order extends the commercial salmon period seven days, until 9:00 p.m. August 9, in the Aleutian Islands Area.

JUSTIFICATION: A strong pink salmon run is anticipated in the Aleutian Islands Area but due to low demand for pink salmon and the remoteness of the area, fishing effort is anticipated to be very light. To date there has been no commercial salmon fishing effort in the area and none is anticipated within the next few days. Fishing time is needed to create an incentive for fishermen and processors to move to the Aleutians to test run strength.

Table 4. Estimated subsistence salmon harvest by gear type for the community of Atka, 1994.[a,b]

	Subsistence Methods					
Salmon	Set Gillnet	Beach Seine	Removed From Commercial Catch	Rod and Reel	Other	Total
Chinook	1	0	0	11	0	12
Sockeye	242	0	0[c]	149	40	431
Coho	303	0	0	264	0	567
Pink	715	0	200[d]	472	0	1,387
Chum	59	0	0[c]	28	20	107
Total	1,320	0	200	924	60	2,504

[a] Twenty eight out of twenty nine households surveyed for 1994, no survey conducted since then assume similar catches in 1995 and 1996.

[b] Data gathered by Lisa Scarbrough, ADF&G, Subsistence Division, and Moses Dirks, USF&WS.

[c] One household removed 100 sockeye and 75 chum salmon from commercial catch at Unalaska.

[d] Additional 30 pink salmon removed from the commercial catch, area unspecified.

Table 5. Estimated subsistence salmon harvest[a] for Unalaska, Island, 1985 - 1996.

Year	Issued	Chinook	Sockeye	Coho	Pink	Chum	Total
Unalaska community resident harvest:							
1985	65	0	897	208	1,293	20	2,418
1986	121	0	3,449	847	2,468	375	7,139
1987	81	0	1,097	378	1,780	151	3,406
1988	74	1	962	390	2,626	83	4,062
1989	70	2	1,064	470	1,292	36	2,864
1990	94	4	2,357	681	1,428	100	4,570
1991	89	0	1,294	666	1,075	45	3,080
1992	144	7	2,739	587	1,723	11	5,067
1993	137	17	2,831	697	587	136	4,268
1994	150	1	2,759	774	1,053	48	4,635
1995	159	23	4,446	480	784	23	5,756
1996	189	5	1,107	1,033	492	49	2,686
1992-96 Avg.	156	11	2,776	714	928	53	4,487
Unalaska non-local, Alaskan resident harvest:							
1985	0	0	0	0	0	0	0
1986	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0
1988	3	2	4	0	1	0	7
1989	4	0	48	0	0	0	48
1990	2	0	0	0	0	0	0
1991	0	0	0	0	0	0	0
1992	0	0	0	0	0	0	0
1993	2	0	0	0	0	0	0
1994	0	0	0	0	0	0	0
1995	1	0	38	4	7	0	49
1996	0	0	0	0	0	0	0
1992-96 Avg.	1	0	8	1	1	0	10
Total Unalaska Harvest:							
1985	65	0	897	208	1,293	20	2,418
1986	121	0	3,449	847	2,468	375	7,139
1987	81	0	1,097	378	1,780	151	3,406
1988	77	3	966	390	2,627	83	4,069
1989	74	2	1,112	470	1,292	36	2,912
1990	94	4	2,357	681	1,428	100	4,570
1991	89	0	1,294	666	1,075	45	3,080
1992	144	7	2,739	587	1,723	11	5,067
1993	139	17	2,831	697	587	136	4,268
1994	150	1	2,759	774	1,053	48	4,635
1995	160	23	4,484	484	791	23	5,805
1996	189	5	1,107	1,033	492	49	2,686
1992-96 Avg.	156	11	2,784	715	929	53	4,492

[a] Harvest estimated from average catch from returned permits

Table 6. Average subsistence salmon harvest, in number of fish, per successful permit holder, Unalaska Island, 1987-1996.

	Year										
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1987-1996 Average
Average Harvest:	79	78	58	55	55	52	48	38	49	22	53

Table 7. Adak-Kagalaska Islands estimated personal use catch, 1988-1996.

Year	Permits Issued	Permits Returned	Percent Returned	Est. Catch					
				Chinook	Sockeye	Coho	Pink	Chum	Total
1988	43	29	67	0	503	23	150	0	676
1989	64	47	73	0	382	0	117	0	499
1990	61	29	48	0	800	47	41	0	888
1991	37	31	87	0	281	6	34	0	321
1992	52	41	79	0	572	30	4	0	606
1993	4	3	75	0	156	0	0	0	156
1994[a]	0	0	0	0	0	0	0	0	0
1995	4	3	75	0	156	0	0	0	156
1996[c]	6	6	100	0	91	0	0	0	91
1988-95[b] Average	49	34	69	0	529	20	62	0	611

a U.S. Navy personnel reduced at Adak, personal use permits not requested.

b Average includes 1994.

c Five permit holders caught fish, with an average of 18 sockeye per permit holder, 48 taken at Quail Bay on Kagalaska Island, the balance was taken at Hidden Falls on Adak Island.

Table 8. Unalaska Island salmon escapements,1996.

Stream Name and Number	Observer	Date	Sockeye	Coho	Pinks	Chum	Comments
							Note: This report uses historic Commercial Fisheries Division stream numbering system.
Morris Lake and Creek							
302.40.11	Holmes	7/24/96	0	0	0	0	Foot survey, outlet stream only, pinks in bay, Clear obstructions in creek.
	Holmes	8/7/96	0	0	0	0	Foot survey, too windy to do lake. water too shallow for fish passage, dug channel at lake and beach outlets.
	Holmes	8/23/96	0	0	0	0	Foot survey lake to mouth, lake too windy. Prob.sockeye in lake and pinks in inlet cr..
Humpie Cove							
302.40.10	Holmes	7/24/96	0	0	0	0	Foot survey, several pinks jumping in bay.
	Holmes	8/7/96	0	0	0	0	Water too shallow for fish passage, dug channel at beach outlet.
	Holmes	8/23/96	0	0	6,689	0	Foot survey approx. 2 1/2 miles, 250 additional dead pinks, fish entering stream, excellent escapement.
Summer's Bay							**Est. 8,000 pink escapement**
302.40.09	Holmes	7/24/96	0	0	0	0	Foot survey, lake not surveyed (too windy)
	Holmes	8/7/96	0	0	0	0	Foot survey, lake not surveyed (too windy)
	Holmes	8/22/96	400	0	0	0	Aerial survey, (fast & high) lake prob.400 sockeye.
	Pappas	8/22/96	200	0	50	0	Boat and foot, 150 sockeye & 50 pinks near lake outlet 50 sockeye in lower 100yds of inlet stream,100sockeye on W. side of lake, more fish up creek and along shore **Estimate 600-800 sockeye escapement.**

-Continued-

Table 8. (page 2 of 3)

Stream Name and Number	Observer	Date	Sockeye	Coho	Pinks	Chum	Comments
Unalaska Village (Illiuliuk outlet, Unalaska lake, Unalaska C.inlet)							
302.40.08	Holmes	7/18/96 to					Lake too windy to survey
		8/24/96	0	0	0	0	Foot surveys, checked every 2-3days for fish, Water level generally low, fish few and very late pinks milling in Margaret's B. from 7/18 on. Assume pinks bound for Unalaska R.
	Holmes	8/14/96	0	0	35	0	Foot survey below bridge, 3-4 thousand pinks in "Church Hole"
	Holmes	8/17/96	79	0	64	0	Foot survey, didn't survey above bridge 1in inlet, 0 below poor vis. in lake, sockeye on w. side, 64 pinks in outlet, 6-7,000 pinks in "Church Hole".
	Holmes	8/18/96	250	0	585	0	Foot survey, good vis, 521 pinks above bridge 1, sockeye on w. side of lake, 12 sockeye 75 yds w. of inlet, 25 near culverts on NE side. 225-250 t.sockeye in lake. 0 in creek. Same number pinks in Illiuliuk and Church Hole. **Est. total 7,500-8,000 pink escapement.**
	HS Class	10/30/96		133			Unalaska H. S. Fisheries class season coho estimate
Pyramid Creek							
302.40.07	Holmes	8/2/96	0	0	0	0	Foot survey lower 200 yds
	Holmes	8/21/96	0	0	0	0	Foot survey lower 300 yds, may have been pinks higher, too late, getting dark and tired.
Shaishnikof River							
302.40.06	Holmes	8/21/96	0	0	1,488	58	Foot survey 3 miles, additional 18 dead pinks & 21 chum Poor escapement, Shaul stated" no decent run here since big storms in early and mid 80's". Didn't survey small chum/coho sloughs near w. side of bay.

-Continued-

Table 8. (page 3 of 3)

Stream Name and Number	Observer	Date	Sockeye	Coho	Pinks	Chum	Comments
Nateekin R.							
302.40.05	Holmes	8/22/96	0	0	2,500	0	Aerial survey 4 1/2 miles, additional 500-700 in lagoon, Very poor escapement! Scouring winter of 1994-95?
	Ruccio	10/07/96	0	447	1	0	Foot survey, average of up and down stream counts + 3 coho in mouth, + 123 dead pinks. Very poor escapement for this date. Unattended gillnet blocking 3/4 of st. mouth.
McLee's Lake							
302.15.07	Holmes	8/22/96	2,170	0	500	0	Aerial survey, fast and turbulent, 1,440-2,000 sockeye in left stream (+ 500 pinks?), 700 sockeye in right, 30 sockeye off mouth in inlet stream, no lake shore spawning sockeye seen.

Season note:
Emphasis on foot surveys was reduced by supervisor, focus on peak aerial surveys. Poor flying weather most of summer, either low ceilings or windy. The Aleutians most experienced stream survey Pilot Nick Sias crashed his Goose and was never found. He was the pilot most often used by staff for aerial surveys. The biologist was only able to get a plane to survey only one time for Unalaska Bay. The flight was made in a Widgeon with a pilot inexperienced at stream surveys.; most of the flight was fast and high due to turbulence, pilot and observer anxiety.

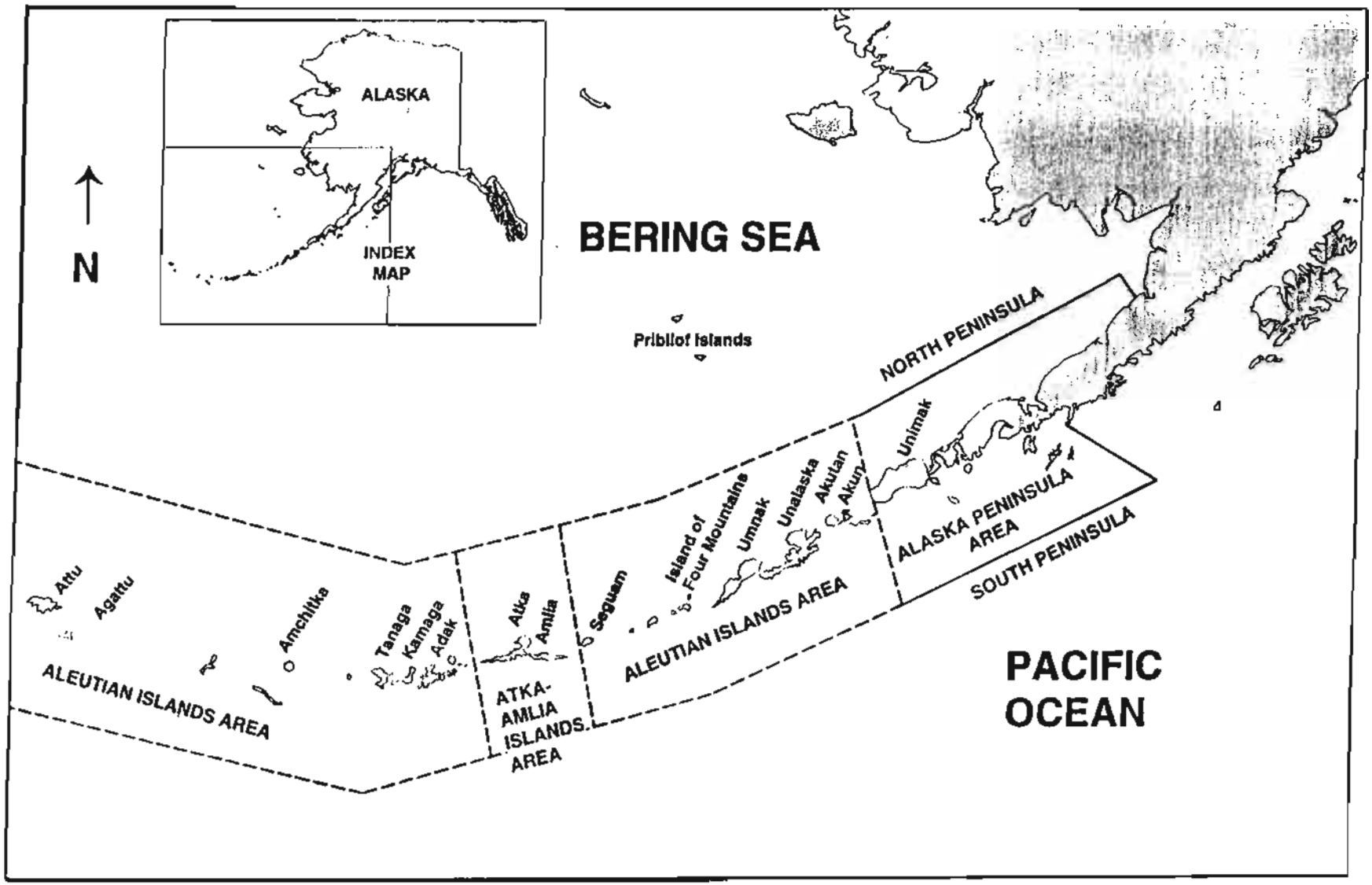

Figure 1. Map of the Aleutian Islands, Atka-Amlia Islands, and Alaska Peninsula Areas

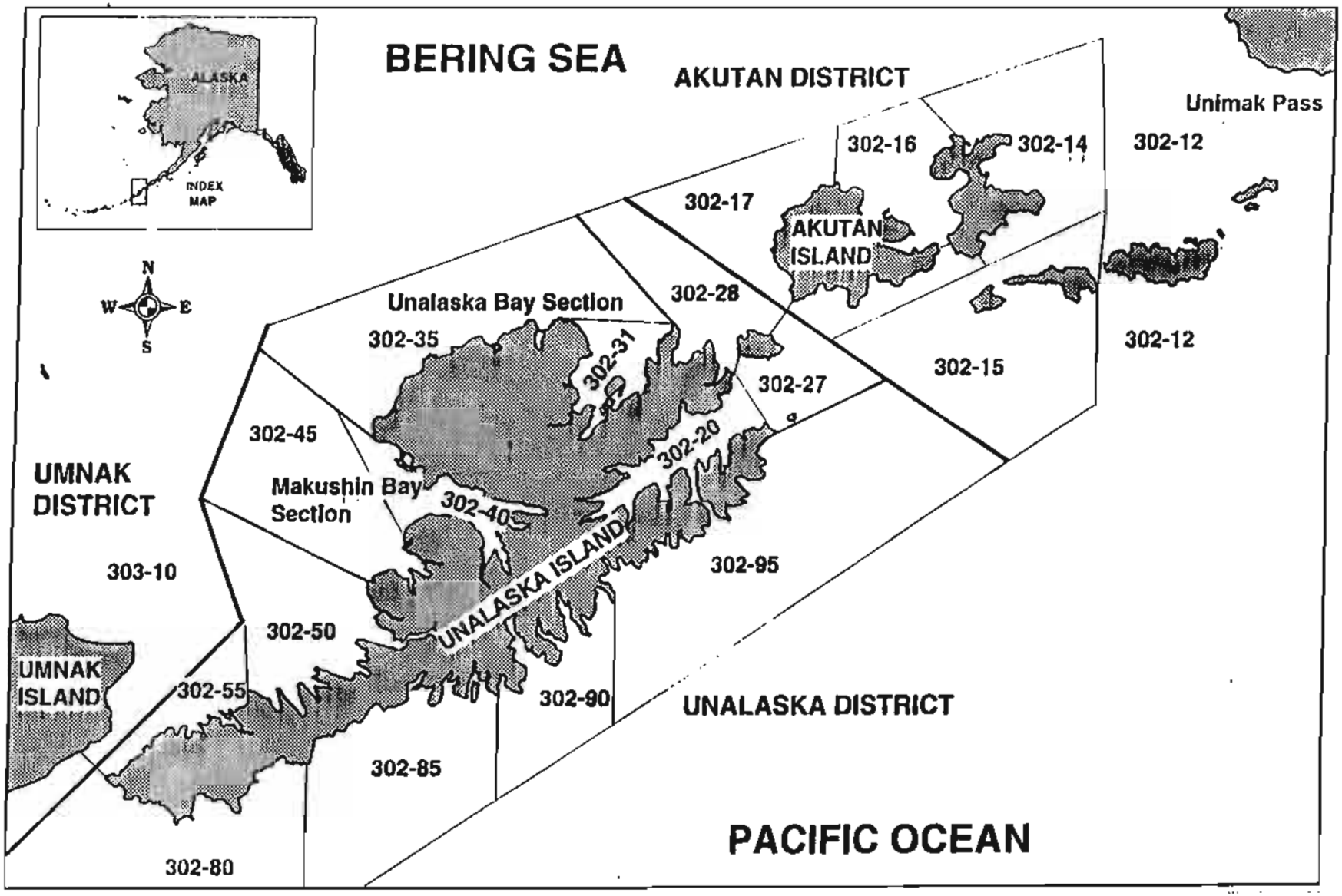

Figure 2. Map of the Aleutian Islands Management Area from Unimak Island to Umnak Island with statistical salmon fishing areas defined.

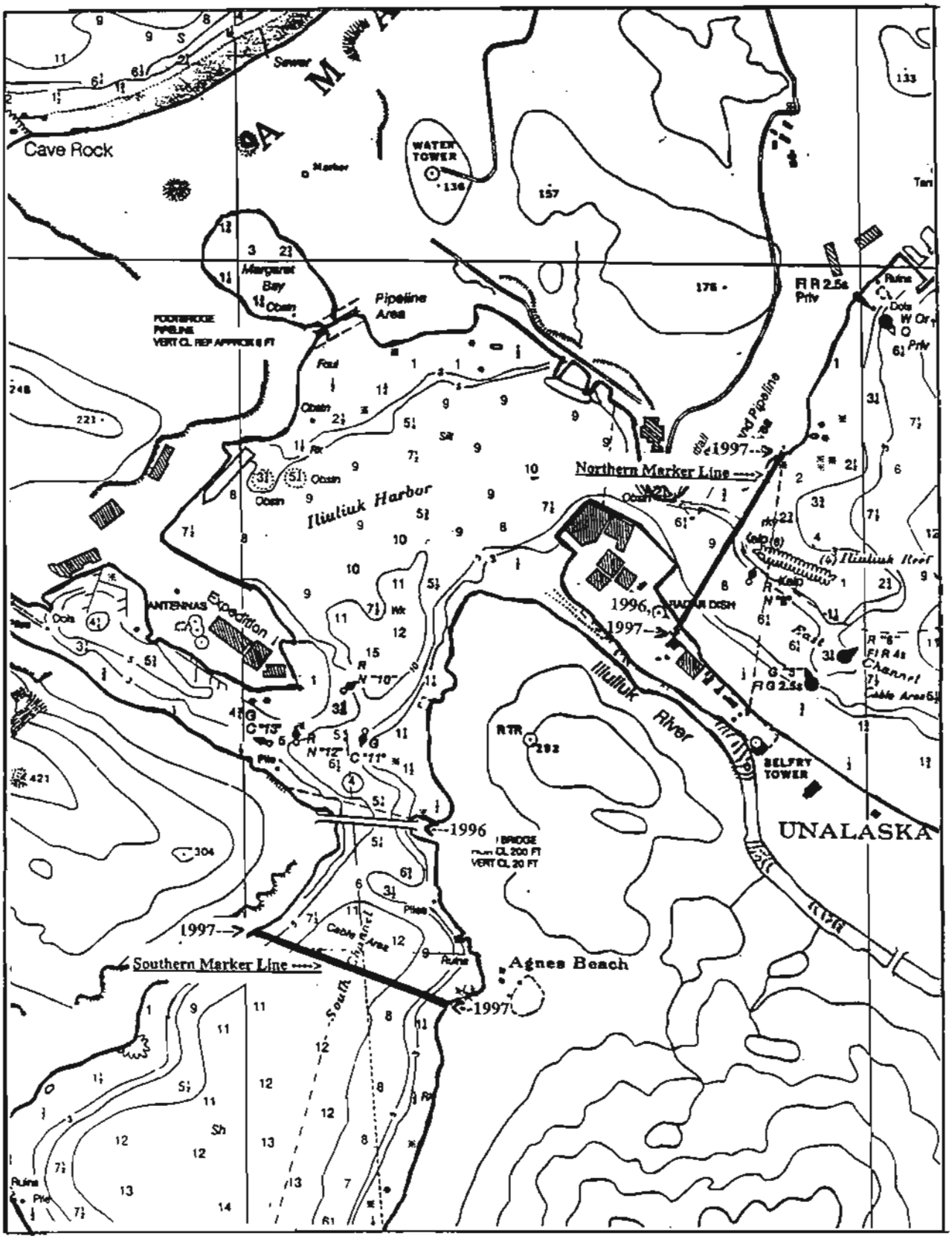

Figure 3. Unalaska Lake outlet revised subsistence salmon closed water markers.

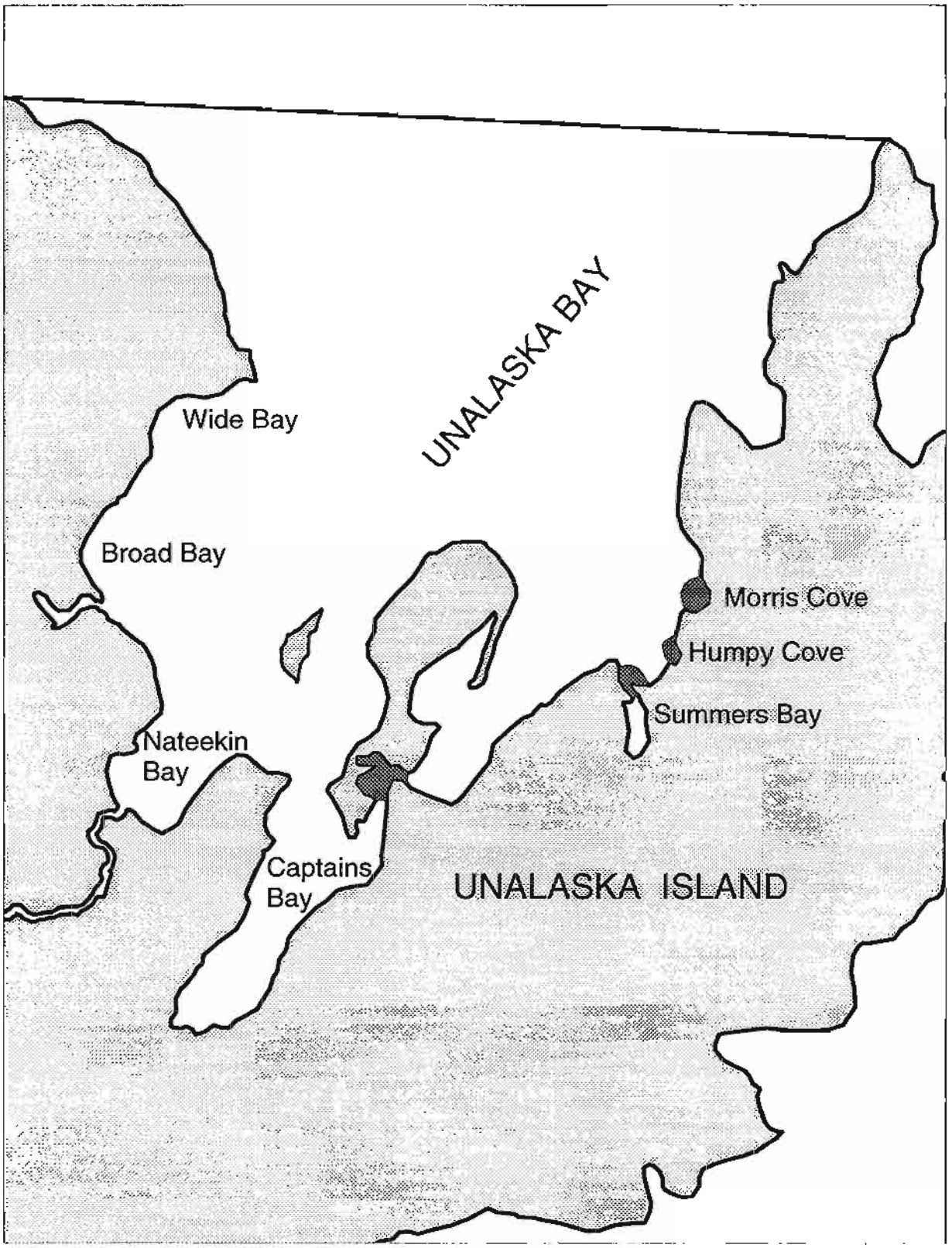

Figure 4. Unalaska Bay subsistence salmon marine closed waters, 1996.